इंटरनेट मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

"जानने का अधिकार, जीने का अधिकार"
Mazdoor Kisan Shakti Sangathan
"The Right to Information, The Right to Live"

"पुराने को छोड नये के तरफ"
Jawaharlal Nehru
"Step Out From the Old to the New"

IS 14738-5 (1999): Flexible Intermediate Bulk Containers (FIBCs), Part 5: Test Methods - UV Resistance Test [TED 24: Transport Packages]

"ज्ञान से एक नये भारत का निर्माण"
Satyanarayan Gangaram Pitroda
"Invent a New India Using Knowledge"

Act Number 22 of 2005
The Indian Parliament
RIGHT TO INFORMATION

Made Available By
Public.Resource.Org

"ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है"
Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

BLANK PAGE

BRUTUM FULMEN

IGNORANTIA
JURIS
NON EXCUSAT

PROTECTED BY COPYRIGHT

IS 14738 (Part 5) : 1999

(Reaffirmed 2004)

भारतीय मानक

नम्य मध्यवर्ती बड़े आधान

भाग 5 परीक्षण पद्धतियाँ — यू वी प्रतिरोधन परीक्षण

Indian Standard

FLEXIBLE INTERMEDIATE BULK CONTAINERS (FIBCs)

PART 5 TEST METHODS — UV RESISTANCE TEST

ICS 55.130

© BIS 1999

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 1999

Price Group 1

Transport Packages Sectional Committee, LM 25

FOREWORD

This Indian Standard (Part 5) was adopted by the Bureau of Indian Standards, after the draft finalized by the Transport Packages Sectional Committee had been approved by the Light Mechanical Engineering Division Council.

In the preparation of this standard assistance has been derived from ISO/WD 11895, Part 5 : 'Flexible intermediate bulk containers, Part 5 Test methods — UV Resistance test' issued by International Organization for Standardization (ISO).

Indian Standard

FLEXIBLE INTERMEDIATE BULK CONTAINERS (FIBCs)

PART 5 TEST METHODS — UV RESISTANCE TEST

1 SCOPE

1.1 This standard specifies test methods for the determination of resistance to ultra-violet (UV) radiation of the loadbearing materials likely to be exposed to sunlight of flexible intermediate bulk containers (FIBCs).

1.2 This standard applies to the materials of FIBCs intended to contain non-dangerous solid materials in powder, granular, or paste form, and designed to be lifted from above by integral or detachable devices.

2 REFERENCE

The following Indian Standard contains provisions which through reference in this text, constitute provision of this standard. At the time of publication, the edition indicated was valid. The standard is subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below:

IS No.	*Title*
14738 (Part 2) : 1999	Flexible intermediate bulk containers (FIBCs): Part 2 Specifications, requirements, certification and marking

3 DEFINITIONS

For the purpose of this standard the definitions of IS 14738 (Part 1) shall apply.

4 INTRODUCTION

Materials often undergo rapid photochemical degradation under the influence of sunlight, unless they have been stabilized in a durable fashion. An accelerated aging that simulates aging caused by sunlight can be brought about by irradiation with light of a UV type. Samples cut from the loadbearing materials of the FIBC (for example cloth, webbing, rope, sewing thread, glues) are subjected for a certain period of time to irradiation from a light source of the UV type with specified spectral distribution.

A number of factors of uncertainty are inherent in this procedure, so comparisons should be available between the method used and exposures in the environment in which the product is to be used.

NOTES

1 Certain types of UV stabilizing additives are rapidly leached out, specially in an alkaline environment which shall be taken into consideration in applicable situations.

2 The performance of UV stabilizing additives can be affected by colour and the type of pigment used.Therefore each combination of UV stabilizing additive and pigment shall be tested separately.

5 TEST METHODS

5.1 Breaking Strength and Elongation

The determination of the breaking strength (and elongation) of the material before and after the UV resistance test shall be performed as per the conditioning requirements specified in IS 14738 (Part 2).

6 SELECTION OF MATERIALS FOR TESTING

6.1 All loadbearing materials likely to be exposed to sunlight of the FIBC type shall be submitted to the UV resistance test.

6.2 Samples of loadbearing materials selected for testing shall be fully representative of the materials of the FIBC type for which certification of conformity with this standard is sought.

7 TEST PROCEDURE

The test shall be performed with fluorescent UV lamp type B.The duration of the test shall be at least 200 h.The test cycle shall be 8 h at 60°C with UV radiation alternating with 4 h at 50°C with condensation.

After exposure is complete, the samples shall be tested for tensile test and the values compared with the results of the tensile test performed on simultaneously cut samples that have been stored under dark and cool conditions.

8 TEST REPORT

The test report shall record at least the following information:

a) Test title/reference;

b) Name and address of the test station and location at which the test was carried out;

c) Name and address of the manufacturer of the material and the location at which it was manufactured;

d) Manufacturer's description of the material to include:

   i) manufacturer's reference (unique to type),
   ii) dimensions, and
   iii) method and materials of construction.

e) Type of apparatus and type of lamp used, and method used;

f) Duration of test, and test cycle;

g) Breaking strength and elongation of the material measured on simultaneously cut samples:

   i) Tested before exposure to the UV radiation,
   ii) Tested after exposure to the UV radiation.

h) Results of inspections to confirm that the material submitted or test conformed to the manufacturer's description of the type;

j) Date of the test; and

k) Signature of the tester.

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act,* 1986 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Handbook' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc : No. LM 25 (0296).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110 002
Telephones : 323 01 31, 323 33 75, 323 94 02

Telegrams : Manaksanstha
(Common to all offices)

Regional Offices :

		Telephone
Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110 002	323 76 17 323 38 41
Eastern	: 1/14 C. I.T. Scheme VII M, V. I. P. Road, Kankurgachi CALCUTTA 700 054	337 84 99, 337 85 61 337 86 26, 337 91 20
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160 022	60 38 43 60 20 25
Southern	: C. I. T. Campus, IV Cross Road, CHENNAI 600 113	235 02 16, 235 04 42 235 15 19, 235 23 15
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400 093	832 92 95, 832 78 58 832 78 91, 832 78 92

Branches : AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE.
FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR.
LUCKNOW. NAGPUR. PATNA. PUNE. RAJKOT. THIRUVANANTHAPURAM.

Printed at : Prabhat Offset Press, New Delhi-2